Second Language Writers and Error Correction: A Literature Review and Some Issues in Research Design

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In relation to the correction of error in the work of developing writers, native and second language researchers have usually followed one of two options. One of these choices is a product approach, while the second is process oriented. A research survey of these two approaches raises some questions that are considered in light of a research design proposal. The paper concludes with a brief mention of the impact of new technology on the teaching and learning of writing in general.

Introduction

How does error correction of student written work affect later second language written production? A reading of the literature suggests there is no consensus on many of the various questions related to this issue, and not a great deal of empirical proof to support particular viewpoints. It does appear, however, that, broadly speaking, researchers approach the question of error correction in written work from two distinct angles. On the one hand, there is a traditional body of research that has focused on the written product. These researchers have investigated the effects that certain methodologies and strategies have on writing, with the idea that a better pedagogical approach is the key to learner improvement. More recently, there has been a shift toward a concentration on studying the composing process itself. Those who favor process oriented research believe that looking at the end product of a piece of student writing doesn't tell us much about the kind of help student writers need to improve their work. The focus for these researchers is on the notion of how writers write -- where ideas come from, how they are formulated and developed and what stages of composing entail. Keeping in mind these two perspectives, what follows is a review of several research studies involving error correction of written work, mostly within a second language context. The latter half of the paper features a discussion of how some pressing issues related to the topic of writing and error treatment might be investigated within the framework of a research design project.

Product Oriented Studies

In her work with learners studying German at the University of Minnesota, Semke (1984) compared the effects of four methods of teacher treatment of error of four free-writing assignments. The correction methods included the following: 1) comments and questions, no corrections; 2) marking all errors and supplying correct forms; 3) combining positive comments and corrections; 4) indicaing errors by means of a code, requiring students to find the corrections and rerwrite.

The four treatment methods were used to gather information related to four basic

questions: 1) Does correcting errors help or hinder student progress in language acquistion? 2) Does giving supportive comments have a positive effect on student attitudes? 3) If corrections are necessary, does the addition of positive comments overcome any negative effects which the corrections might produce? 4) Do students achieve more when forced to correct their own mistakes?

Semke concluded that correcting students' original compositions is not generally worthwhile. In this study, the only thing that improved student writing was practice over time, and corrections didn't significantly improve writing skills. In relation to question two, supportive comments in lieu of correction seemed to have had a positive effect on student attitude toward writing and the target language in general. Adding positive comments to corrections made very little difference when compared to correction alone. Results of measure of achievement in this study showed that correction by itself was equal to or better than correction plus comments. In other words, a few positive comments don't seem to counteract a sea of red ink corrections. Finally, the subjects in this study did not achieve more when made to correct their own errors. On the contrary, students correcting their own errors was the least effective treatment in terms of both student achievement and attitude.

A second "traditional" study by Lalande (1981) offers some interesting comparisons and contrasts with Semke's work. Lalande's research also focused on students studying German, in this case at Pennsylvania State University. He based his work on what he sees as the four specific components of an effective strategy for developing writing skills. First, he believes in comprehensive error correction, arguing that writing is different from speaking in several ways (in relation to speaking he endorses selective error correction). Among other differences, unlike oral work, Lalande points out the correction of written errors is done in private. He argues that unless all written errors are dealt with they will become ingrained in students' interlanguage systems. Secondly, citing several studies that indicate teachers are wildly inconsistent in their handling of student composition error, he supports systematic marking of compositions. Third, he feels learners should correct their own errors using an approach he calls "guided-learning problem-solving"; in effect, this involves using an error correction code as an aid to self-correction. Lastly, Lalande believes instructional feedback has its greatest impact on incorrect responses, and downplays the effects of positive comments.

Lalande's experiment tested the efficacy of his four basic components in relation to the combined grammatical and orthographic correctness of compositions written by intermediate level college students studying German.
The manipulated variable in the study was the way in which feedback was given on two seperate sets of student essays. One group of papers was simply marked by giving corrections and having students do a rewrite. In the second group, teachers using something called an ECCO (Error Correction Code) systematically marked student compositions. This second group was charged with interpreting codes, correcting, and then doing rewrites. In addition, group two subjects were told to use an error awareness sheet (EASE), designed to make them conscious of their most frequent and recurring errors.

Lalande concluded that the combination of

error awareness and problem-solving techniques had significant beneficial effect on the writing skills of the learners in the second group. Students in this group, within the context of this experiment, were effectively prevented from making more grammatical errors. Further results included the idea that systematic marking of student written work by teachers should be the rule rather than the exception. Because he believes affective disposition of students isn't adversely affected by total error correction (a controversial conclusion -- evidently based on a questionnaire that indicated 86% of the students in group two supported the error correction techniques used in the experiment) Lalande also concluded teachers should settle for nothing less than total correction. In his view, students should get instructional feedback on essays, and be informed of the nature and location of their mistakes so that they can correct using a problem-solving approach. Similarly, rewrites are useful, provided they are undertaken in an active problem-solving vein.

A third study worth mention is that of Robb, Ross and Shortreed (1986). The essential question in this study involved the degree of feedback necessary for students to effectively revise a composition. The study dealt with the relative merits of direct and indirect feedback by comparing four types of error treatment, each with progressively less salient information for making revisions. The manipulated variable in the experiment was the kind of feedback four groups of Japanese college freshmen studying English composition received on a series of essays. The four types of feedback were as follows: 1) Focus on lexical, syntactic and stylistic errors, completely corrected by teachers. 2) An abbreviated code system. The error type was identified on student papers and a guide was used to decipher instructor markings. 3) A third group received uncoded feedback, which is to say instructors specified only where mistakes were, with no further information.
4) The number of errors per line was totaled and written in the margins of student papers. Students were required to reread, search for the errors and correct them.

The results of this study indicated that the assumption underlying overt correction -- that more correction results in more accuracy -- was not convincingly demonstrated. In general, more direct methods of feedback didn't produce results equivalent to draw student attention to surface error. Only practice over time led to improvement in student writing. Any negative influences of corrective feedback appeared to be offset by continual writing practice. Again, emphasis on mechanics (direct correction of student error) was likely not worth the teacher's time and effort.

The Semke, Lalande, and Robb (et alia) studies represent a reasonable cross-section of some of the issues confronting researchers that have focused on second language written product. It may be useful at this point to draw some tentative conclusions based on these three studies. First, students learn about and improve their writing by writing. In all the studies, as the experiments continued, students produced more complex structures with more practice. Ironically, the use of more complex structures may have had the effect of improving student writing while at the same time causing more written errors; sort of a case of going forward by going backward. Secondly, some type of teacher feedback appears desirable, though how much, when and what type is in debate. Semke, for example,

found, as noted earlier, that supportive comments in place of correction improved student attitude towards writing and the target language. Lalande's subjects improved through a combination of systematic teacher feedback and use of his error awareness sheet. Robb (et alia) concluded that more correction doesn't result in more accuracy, but wasn't willing to discount the use of some form of teacher feedback. Finally, all three studies seem to show overt teacher correction of learner error isn't worth the time and effort; recall that students in the Lalande study who were able to show improved writing skills did so partly on the basis of looking at systematic teacher feedback, but were required to make their own corrections.

Process Oriented Studies

The research done by Zamel (1982, 1983, 1985) takes the question of error correction in written work into a different realm than previously mentioned. She has done three interesting studies with ESL writers on the writing process, or what she calls "writing behaviors." Zamel and others interested in the writing process are concerned with how writers generate, record and refine material into a text. Zamel favors a case-study approach in her research, observing ESL students during various stages of writing and conducting interviews to get student views on composing.

Sommers (1980, 1982), Emig (1971) and Perl (1980) have done process oriented studies of writers in their native languages. Emig and Perl have alluded to the non-linear nature of the composing process. The more proficient writers in their studies were concerned initially with getting their ideas down on paper. Then, through a recursive process of going back and forth, often entailing the writing of many drafts, the student writers gradually shaped their work into a final product. Rather than starting from a preconceived notion of what form their work would take, the better writers in these studies felt that it was the process of writing and rewriting that helped them get closer to their intended meaning; the form their work eventually took suggested itself as they proceeded. Sommers (1980) stresses the importance of revision and makes the point that the more experienced writers in her own study tended to take a global view of their work; like Perl, she found the least skilled writers were overly concerned with correctness, viewing composing as mechanical and formulaic and thus not successfully going beyond surface concerns.

Zamel has attempted to address some of the issues raised by Sommers, Perl and Emig in an ESL context. She believes the native writer studies are applicable to ESL students because writing as a process is only partially linguistic. Regardless of language proficiency, a writer also needs to master the essentially non-linguistic and cognitive skills which underlie writing.

In one of her studies, Zamel (1982) observed the composing processes of eight ESL writers (one Japanese, one Hispanic, two Arabic, two Italian, and two Greek) and interviewed them about their writing behaviors. The students stressed the importance of discussion to get their ideas flowing initially. Concerning pre-writing strategies, Zamel found that her subjects, like those in the native studies, didn't usually begin with a clear idea of the overall form their writing would take. The students felt that tying themselves to a model early inhibited the back and forth flow of their ideas.

Once the ESL writers began writing and following a process of write, rewrite, and write some more, they needed to step back, to let go for a while, before returning to do more. The students felt that new insights could occur at any time, that their ideas overlapped, and there was not a clean stage-by-stage development in their work.

Only at the very end, after going through an entire process of writing, rethinking and rewriting did the students focus on mechanics, questions of vocabulary, tense, punctuation and sentence structure. In sum, for the more proficient writers in this study, the problem was not language, but rather the putting together of ideas.

In a second study, Zamel (1985) examined ESL teacher response to student writing. Earlier studies (Taylor, 1981, Sadow and Spack, 1983) had indicated obsessive preoccupation with student miscue on the part of correcting teachers, and the fact that teachers responded inconsistently and imprecisely to student error (Hendrickson, 1980). Sommers (1982) found that teachers often applied uniformly inflexible standards in judging student writing and pre-empted control by saddling learners with ideal or model texts. Zamel's study confirmed many of Sommer's findings, again in an ESL context. Teachers in the Zamel research were inconsistent, corrections contradictory and texts responded to as fixed and final products. Only rarely were content-specific comments or specific revision strategies offered. The teachers viewed the students as language learners rather than developing writers.

In a discussion of the implications of her study, Zamel suggests that teachers need to facilitate revision by responding to writing as a work in progress; again, response to all student writing as a final product focuses student attention on mechanical concerns of grammar. She further suggests face-to-face sessions between students and teachers so that flexible text-specific strategies , directions and guidelines can be worked out that allow students room for exploration in their writing.

In summary, Zamel is of the opinion that grammar has very little to do with composing and that, in fact, as shown by the ineffectual writing strategies of the least proficient writers in her research, can inhibit the ebb and flow of ideas essential to the composing process. She also rejects approaches that view writing as a sequential process of separate tasks, since they lock students into models that fail to show the process in producing a finished piece of writing is often totally chaotic. The focus for teachers, in her view, becomes forgetting about a pre-determined pattern and helping students find order through techniques such as brainstorming, group and pair work and list writing. In terms of teacher response to learner writing, Zamel believes instructors should react to student ideas instead of finding and correcting errors. Syntax, grammar and rhetorical form are all elements to be addressed, but they should not form the basis of instruction -- such items are useful as tools to express meaning more clearly, not ends in themselves.

Pressing Issues and Research Design

Having worked through the backround material on error correction in written work, a logical question might now be the following: What is the most pressing issue related to the topic? At first glance, the number one concern could be a question of approach: Is a

product or process oriented approach a more profitable way to deal with error in written work, and student writing generally? Studies like those of Semke, Lalande and Robb(et alia) examine student writing from the point of view of dealing specifically with student mistakes by varying methodological approach and correction strategies. On the other hand, reserchers such as Zamel have gone straight to ESL writers themselves in an effort to get inside their heads and find out why they adopt the procedures and strategies they do. Because Zamel is interested in writing as a process, her view of errors and how to treat them differs from the opinions of product oriented researchers. In a sense, she takes a larger view, seeing errors as one piece in a puzzle, something to be focused on at some point, but a subordinate concern to the overall writing. Still, from a research point of view, it is hard to accept the dichotomy between the two approaches as the most profitable source of enquiry. Though the two approaches are fundamentally different, any research information using either approach is valuable to all researchers and thus tends to blur lines of distinction. Further, there is nothing that mandates the approaches be used in a mutually exclusive manner; it may be a bit misleading to label researchers as product or process oriented on the basis of one or two experiments.

A second possible research avenue might involve teacher feedback. It is evident that all the researchers mentioned here favor some sort of teacher feedback on student written error; they differ on what type of feedback to give. This is an unresolved question that seems destined to remain unresolved. It can be argued that the question is not of major concern in the sense that criteria for correction is, in the words of Sheldon (1988-commenting in an article on textbook evaluation, but no matter), "emphatically local." Teachers will have to decide for themselves, based on their own individual teaching and learning circumstances, for example, what specific types of errors to stress and how to bring them to student attention.

We are still left with the problem of what the most pressing issue related to the topic might be. In one of the Zamel studies (1983), she concluded that the more skilled ESL writers went through three cycles in producing a finished piece of writing. The first involved discovering a creative framework, or a plan for making meaning, the second involved ordering the material and the third how best to express it. Thus, concerns with grammar were virtually the last thing on the more proficient students' writing agendas. A major question, then, becomes this: Given that some sort of teacher feedback is desireable, at what point should the feedback be given? If Zamel is correct and ESL writers don't worry much about grammar until the end of a writing project, doesn't it follow that teachers shouldn't either? (A secondary issue might be the question of to what extent a too early grammatical concentration constrains student writing).
A study in this area might be expected to have students concerned with error correction only at a late stage in the writing process produce a more fluent final product.

A Possible Research Project

A research design to deal with at what point feedback on student written error be given could involve three groups of intermediate ESL writers. The individual students in each group would write a series of compositions, perhaps three, on the same topics for

work in a writing course. Each assignment would require three drafts. After the writing of each draft, learners would meet individually with teachers to discuss their work. The manipulated variable in the study would be the point at which students would receive teacher feedback having specifically to do with mechanical errors, those having specifically to do with vocabulary, tense, punctuation and sentence structure. For one group, teachers would focus on mechanics starting with draft one. For group two, no reference to mechanics would be made until students came in with their second drafts. And for the third group, mechanics would not be an issue until the final draft.

After completion of the three drafts, students would finish and turn in their final copies. The final composition papers would be given some sort of score based on an analysis of form, content and grammatial error. At the end of the course, each student would have scores for three papers which could be analysed and cross-referenced in any number of ways.

The proposed design has a couple of areas that would need to be carefully handled. First, it would have to be clearly emphasized to the teachers dealing with the second and third groups to hold back on any mention of mechanical mistakes until the designated draft; given the demonstrated teacher propensity for going after surface error, this could be a problem. Second, the feedback on student drafts would have to be given in as systematic a way as possible. Whatever the treatment used, self-correction using an error code, for example, it would have to be based on a consistent across-the-board standard. Finally, in scoring the final compositions, raters would probably need some sort of training or workshop to minimize possible inter-rater validity or reliability problems.

Conclusion

It would probably be remiss to conclude a paper on the topic of writing and student error without at least a nod in the directon of word processing and other technological support available to today's developing writers, be they native or second language learners. Hedge (2000) offers a useful summary concerning the impact of technology on writing behaviors. She notes, for example, that word processing eliminates the difficulty many students have with the physical act of handwriting in a second language; that it allows students to get ideas down in print almost instantaneously, and that weak writers, who, as a group, tend to concentrate overly on the sentence and word level, can be trained to think more globally by cutting and pasting longer blocks of text. It is simply an undeniable fact that new technology has changed and been of benefit to writing teachers and students in many ways.

On a recent visit to the computer lab I observed a group of EFL students as they worked their way through a handout they had to finish and hand in at the end of the class. While the focus of the assignment was not specfically related to writing, students did have to respond to one question that required a two or three sentence answer. When I looked through the papers, I noticed more than half the class hadn't bothered to do the short answer question. The reason for this was not that the question was too hard or that students had run out of time. No, I think it had more to do with the fact that the question

required a small bit of thinking and could not simply be answered using one or two words or circling a, b, c, or d.

What is the point? Only that computers and word processing, while useful tools, are not a substitute for the real work students have to do to_ become better writers and thinkers in a second language. Many of today's slicker software language learning programs have answer keys and bilingual functions that allow students to easily look up answers or word meanings. These kinds of features can be fine study aids when used conscientiously. Still, some learners looking for shortcuts may just copy or use the technology in a way similar to having an actual teacher correct all student errors. Perhaps it is worth remembering that in virtually all of the studies discussed in this paper, the overt teacher correction of student error was the least effective treatment of all.

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